

REMARKS

Claims 17 – 23 are pending in this application. Claim 17 is currently amended. No new matter has been added as a result of this amendment. In view of the following amendment and remarks, the Applicants respectfully request reconsideration of this application.

Rejection of Claims 17 – 18 Under U.S.C. §102:

Claims 17 – 18 were rejected under U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,456,336 (the "'336 patent") to Chung et al. and as being anticipated by Japanese Patent JP02002090511A (the "Yonekubo patent") to Yonekubo et al. Applicants have rewritten claim 17 and submit that this claim and dependent claim 18 overcome the rejection.

The present invention is directed towards a reflector that can be suitably used for a reflection type liquid crystal display device that uses ambient light as a light source. The present invention comprises a reflector having a plurality of light reflective portions arranged randomly adjacent to each other on a surface of a base material. Each of the light reflective portions is formed so that an inclination angle is maximum on one side of the reflective portion's surface. Moreover, the one side of the reflective portion having the maximum inclination angle is disposed opposite to the side of the reflective portion from which an observer is located.

A. The '336 Patent

The '336 patent is directed towards a reflector for use in liquid crystal displays. The reflector consists of a glass plate which has concaved shaped cavities on at least one major surface. Col. 2, lines 56 – 59; Col. 5, line 68 – Col. 6, line 1. A highly reflective layer is deposited upon this surface of the substrate. Col. 3, lines 1 – 3. Additionally, a light transparent low index of refraction layer is in optical contact with the reflective layer. Col. 3, lines 9 – 11. In operation, the reflective surface can provide reflection brightness three times greater than a diffuse surface up to 40 degree viewing angle.

In order for a reference to act as a §102 bar to patentability, the reference must teach each and every element of the claimed invention. Verdegall Bros. v. Union Oil Co. of California, 814 F.2d 628, 631 (Fed. Cir. 1987). Without the required teaching of each and every element as set forth in the claims, it is improper for the Examiner to continue such rejections under §102(b).

Claim 17 has been amended to recite a limitation that the side of the light reflective portion that contains the maximum inclination angle is disposed opposite the observer. This limitation is not present in the structure described in the '336 patent. To the contrary, in FIGS. 1A and 1B of the '336 patent, the cavities are illustrated such that each cavity does not have its maximum inclination angle on the same side as adjacent cavities. As a result, it is not possible, as recited in claim 17, for the maximum inclination angle of each of the cavities to be located on the side opposite the observer. Accordingly, the present invention provides an effect that a bright display can be presented to the observer which cannot be provided by the '336 patent.

For at least the above reason, the Applicants believe this amendment places claim 17 in condition for allowance and respectfully request reconsideration of this claim. Claim 18 depends from claim 17, and therefore likewise includes the amended limitation. For at least the above reason, Applicants believe that claim 18 is patentable over the prior art and respectfully request reconsideration of this claim.

B. The Yonekubo Patent

The Examiner rejected claims 17 – 18 under 35 U.S.C. §102(b) as being anticipated by the Yonekubo patent. The Yonekubo patent was published on March 27, 2002. Applicants' present patent application claims the benefit of the filing date of U.S. Patent Application Serial No. 06/896,195 filed June 29, 2001. As such, Applicants' present application has a domestic priority date that predates the Yonekubo patent. Therefore, the Yonekubo patent is not a prior art reference and cannot form the basis for a rejection under §102(b). For at least this reason, Applicants respectfully request reconsideration of claims 17 – 18 in light of the Yonekubo patent.

Rejection of Claims 17 – 18 Under U.S.C. §103:

Claims 17 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,130,736 (the “’736 patent”) to Sasaki et al. in view of the ’336 patent to Chung et al. Additionally, Claims 17 and 21 were rejected under 35 U.S.C. §103(a) as being unpatentable over the ’736 patent to Sasaki et al. in view of the Yonekubo patent to Yonekubo et al. Applicants respectfully traverse these rejections and respectfully request reconsideration of claims 17 and 21.

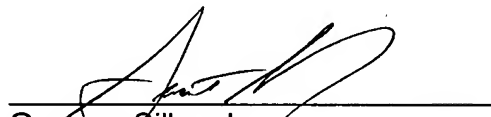
With respect to claims 17 and 21 being unpatentable over the ’736 patent in view of the ’336 patent, the Examiner acknowledges that the ’736 patent does not teach aspects of the reflector. Nor, as previously asserted, does the ’336 patent teach the element in which the portion of the reflective surface with the maximum inclination angle is disposed opposite to the observer. Accordingly, since the combination of references does not teach or suggest all of the elements of claim 17, it is improper for the Examiner to continue such rejections under §103(a). Claim 21, being dependent on claim 17, without more is in condition for allowance.

With respect to claims 17 and 21 being unpatentable over the ’736 patent in view of the Yonekubo patent, the Examiner acknowledges that the ’736 patent does not teach aspects of the reflector. Nor, as previously asserted, does the Yonekubo patent constitute prior art. Accordingly, since the combination of references does not teach or suggest all of the elements of claim 17, it is improper for the Examiner to continue such rejections under §103(a). Claim 21, being dependent on claim 17, without more is in condition for allowance.

SUMMARY

Claim 17 has been amended. Claims 17 – 23 remain pending. In view of the amendment and for at least the reasons given above, the Applicants respectfully submit that the pending claims are in condition for allowance. If for any reason, the Examiner believes that the amendment and remarks do not put the claims in condition for allowance, the undersigned attorney can be reached at (312) 321-4200 to resolve any remaining issues.

Respectfully submitted,



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